

APPENDIX

JC526 U.S. PTO
09/057786
04/08/98

IAMTVTuner::AutoTune

Scans for a precise signal on the channel's frequency.

```
HRESULT AutoTune(  
    long IChannel,  
    long * pIFoundSignal  
);
```

Parameters

IChannel

[in] TV channel number.

pIFoundSignal

[out] Value indicating whether the channel's frequency was found; TRUE indicates found, FALSE indicates not found.

Remarks

TV channels generally map to a unique frequency depending on regional variances. To avoid interference between multiple transmitters that are assigned the same channel when they are in close geographic proximity, small frequency offsets are introduced at each transmitter. In the US, this offset ranges up to +/- 26.25 kilohertz (kHz).

This method handles the channel to frequency conversion and scans for the most precise frequency. These values are stored by calling the "IAMTVTuner::StoreAutoTune"_method.

IAMTVTuner::ChannelMinMax

Retrieves the highest and lowest channels available.

```
HRESULT ChannelMinMax(  
    long *IChannelMin,  
    long *IChannelMax  
);
```

Parameters

IChannelMin

[out] Pointer to the lowest channel.

IChannelMax

[out] Pointer to the highest channel.

IAMTVTuner::get_AudioFrequency

Retrieves the currently tuned audio frequency.

```
HRESULT get_AudioFrequency(  
    long *IFreq  
);
```

Parameters

IFreq
[out] Pointer to the current audio frequency.

IAMTVTuner::get_AvailableTVFormats

Retrieves all analog video TV standards that are supported by the tuner.

```
HRESULT get_AvailableTVFormats(  
    long *IAnalogVideoStandard  
);
```

Parameters

IAnalogVideoStandard
[out] Pointer to the combination of analog video standards supported.

IAMTVTuner::get_Channel

Retrieves the current TV channel set by the "IAMTVTuner::put_Channel" method.

```
HRESULT get_Channel (  
    long *pIChannel,  
    long *pIVideoSubChannel,  
    long *pIAudioSubChannel  
);
```

Parameters

pIChannel
[out] Pointer to the channel.

pIVideoSubChannel
[out] Pointer to a predefined video subchannel value. Specify
AMTUNER_SUBCHAN_NO_TUNE for no tuning or AMTUNER_SUBCHAN_DEFAULT
for default subchannel.

pIAudioSubChannel
[out] Pointer to a predefined audio subchannel value. Specify
AMTUNER_SUBCHAN_NO_TUNE for no tuning or AMTUNER_SUBCHAN_DEFAULT
for default subchannel.

IAMTVTuner::get_ConnectInput

Retrieves the hardware tuner input connection.

```
HRESULT get_ConnectInput (  
    long *plIndex  
);
```

Parameters

plIndex
[out] Pointer to the input pin to get the connection for.

IAMTVTuner::get_CountryCode

Retrieves the country code that establishes the current channel to frequency mapping.

```
HRESULT get_CountryCode (  
    long *plCountryCode  
);
```

Parameters

plCountryCode
[in] Country code currently in use by the tuner filter 110 (Fig. 4).

Remarks

The "IAMTVTuner::put_CountryCode" method determines which channel to frequency mapping table to use. This establishes the base frequencies for the given country. Use the "IAMTVTuner::AutoTune" method to determine the exact frequencies for specific regions.

IAMTVTuner::get_InputType

Retrieves the input type set in the "IAMTVTuner::put_InputType" method.

```
HRESULT get_InputType (  
    long lIndex,  
    TunerInputType *pInputType  
);
```

Parameters

lIndex
[in] Index value that specifies the input pin that will be set.

pInputType

[out] Pointer to the "TunerInputType" connection type specified in the "IAMTVTuner::put_InputType" method; either cable (TunerInputCable) or antenna (TunerInputAntenna).

IAMTVTuner::get_NumInputConnections

Retrieves the number of TV sources plugged into the tuner filter.

```
HRESULT get_NumInputConnections(  
    long * plNumInputConnections  
);
```

Parameters

plNumInputConnections

[out] Number of TV sources plugged into the tuner filter.

IAMTVTuner::get_TuningSpace

Gets the storage index for regional fine tuning set in the "IAMTVTuner::put_TuningSpace" method.

```
HRESULT get_TuningSpace(  
    long * plTuningSpace  
);
```

Parameters

plTuningSpace

[out] Value specifying the current locale.

Remarks

As TV tuners move into portable systems, you must retain locale-specific mappings of available channels and their actual frequencies. Formulating different *ITuningSpace* values for each locale provides a way of switching the channel to frequency mappings when moving from region to region.

IAMTVTuner::get_TVFormat

Retrieves the current analog video TV standard in use.

```
HRESULT get_TVFormat(  
    long * plAnalogVideoStandard  
);
```

Parameters

pIAnalogVideoStandard

[out] Pointer to the analog video standard currently in use by the tuner filter 110 (Fig. 4).

IAMTVTuner::get_VideoFrequency

Retrieves the current video frequency.

```
HRESULT get_VideoFrequency(  
    long *IFreq  
);
```

Parameters

IFreq

[out] Pointer to the video frequency.

IAMTVTuner::put_Channel

Sets the TV channel.

```
HRESULT put_Channel(  
    long IChannel,  
    long IVideoSubChannel,  
    long IAudioSubChannel  
);
```

Parameters

IChannel

[in] TV channel number.

IVideoSubChannel

Predefined video subchannel value. Specify AMTUNER_SUBCHAN_NO_TUNE for no tuning or AMTUNER_SUBCHAN_DEFAULT for default subchannel.

IAudioSubChannel

Predefined audio subchannel value. Specify AMTUNER_SUBCHAN_NO_TUNE for no tuning or AMTUNER_SUBCHAN_DEFAULT for default subchannel.

Remarks

This method handles the channel to frequency function call that converts the TV channel to a TV frequency.

IAMTVTuner::put_ConnectInput

Sets the hardware tuner input connection.

```
HRESULT put_ConnectInput(  
    long IIndex  
);
```

Parameters

IIndex
[in] Index value of the input pin to set connection for.

IAMTVTuner::put_CountryCode

Sets the country code to establish the frequency to use.

```
HRESULT put_CountryCode(  
    long ICountryCode  
);
```

Parameters

ICountryCode
[in] Value indicating the country code.

Remarks

This method establishes the base frequencies for the given country. Use the "IAMTVTuner::AutoTune" method to determine the exact frequencies for specific regions, unless there are previously cached settings for the new country.

IAMTVTuner::put_InputType

Sets the tuner input type (cable or antenna).

```
HRESULT put_InputType(  
    long IIndex,  
    TunerInputType InputType  
);
```

Parameters

IIndex
[in] Index value that specifies the input pin to be set.
InputType
[in] Indicates the connection type, as specified in the TunerInputType data type.

IAMTVTuner::put_TuningSpace

Sets a storage index for regional channel to frequency mappings.

```
HRESULT put_TuningSpace(  
    long ITuningSpace  
);
```

Parameters

ITuningSpace
[in] Value indicating the current locale.

Remarks

For portable systems, this method retains locale-specific mappings of available channels and their actual frequencies. Formulating different *ITuningSpace* values for each locale provides a way of switching the channel to frequency mappings when moving from region to region.

IAMTVTuner::StoreAutoTune

Saves the fine-tuning information for all channels.

```
HRESULT StoreAutoTune( );
```

Remarks

Override the channel to frequency information stored by this method by setting a new country code in the "IAMTVTuner::put_CountryCode" method.

